

What Is Claimed Is:

1. A servo motor drive control device for driving and controlling a periodically operated drive object by means of a servo motor, comprising:

a position detector for detecting the position of said drive object;

means for obtaining the positional deviation between a positional command supplied to the servo motor and the position of said drive object as fed back by said position detector, for each sampling cycle;

first converting means for converting said positional deviation into a positional deviation at a prescribed position with respect to a reference position output in synchronization with the drive of said drive object;

correction data calculating means for obtaining, from the positional deviation at said prescribed position determined by the first converting means, correction data corresponding to the prescribed position;

storing means for storing the correction data obtained by said correction data calculating means, for at least one cycle; and

second converting means for converting the correction data for said prescribed position stored in said storing means, to correction data for each of said sampling cycles;

wherein the position of said drive object is controlled on the basis of said positional deviation and the correction data obtained by the second converting means.

2. The servo motor drive control device according to claim 1, wherein said correction data calculating means comprises: adding means for adding correction data for said prescribed position of the previous cycle as stored in said storing means, to the positional deviation at said prescribed position; and filtering means for filtering the positional deviation output by the adding means, determining new correction data, and outputting same to said storing means.

3. A servo motor drive control device for controlling a periodically operated drive object, by means of a servo motor, by performing at least positional loop control, comprising:

storing means for storing correction data for a prescribed position at a reference position output in synchronization with the drive of said drive object, for one cycle;

second converting means for determining correction data for each sampling time period from the correction data corresponding to a prescribed position stored in said storing means;

means for correcting said positional deviation by determining a correctional quantity from the correction data determined by said second converting means;

adding means for adding the correction data determined by said second converting means to the positional deviation detected at each sampling period;

filtering means for determining updated correction data for each sampling period by filtering the addition result from the adding means; and

first converting means for determining correction data for each of said prescribed positions, from the correction data for each sampling period output by said filtering means, and outputting same to said storing means.

4. The servo motor drive control device according to claim 1 or claim 2, wherein said first converting means obtains a positional deviation at said prescribed position on the basis of the positional deviation detected at each sampling period, and said reference position.

5. The servo motor drive control device according to claim 3, wherein said first converting means obtains correction data for said prescribed positions, respectively, from the correction data determined for each sampling period.

6. The servo motor drive control device according to claim 1 or 3, wherein said reference position is either the command position supplied to said drive object or another drive object, or the detected position of said drive object or said other drive object.

7. The servo motor drive control device according to claim 1 or 3, wherein said second converting means determines

correction data for the sampling period on the basis of the reference position for the sampling period and the correction data corresponding to said prescribed position stored in said storing means.

8. The servo motor drive control device according to claim 1 or 3, further comprising:

a polarity judging section for judging the polarity of a velocity command or velocity feedback signal;

wherein said storing means has two storing sections for respectively storing correction data according to the polarity of the velocity command or velocity feedback signal; and

said two storing sections are switched alternatively in accordance with the polarity of the velocity command or velocity feedback signal as judged by said polarity judging section.

9. The servo motor drive control device according to claim 1 or 3, wherein said prescribed positions for the correction data stored in said storing means are determined respectively by taking said reference position when a reference signal is input from an external source, as a zero position.